

# **Next Generation Reverse Transcriptases**

The EasyScript™ Reverse Transcriptase (RTase) series consists of mutational derivatives of Moloney Murine Leukemia Virus (MMLV) RTases which catalyze the synthesis of complementary DNA (cDNA). EasyScript™ and EasyScript Plus™ are engineered to have high fidelity reverse transcription with exceptional template sensitivity and improved product yield, representing the best RTases on the market. EasyScript Plus™ has an additional benefit of increased thermostability due to a series of functional mutations that allows for activity over a broad temperature range, making it suitable for RNA templates with secondary structure and/or high GC content. The thermostable EasyScript Plus™ is active from 45 - 55°C (recommended to be used at 50°C) while EasyScript™ is suitable for reactions at 42°C.

# **Multiple Formats For All RT-PCR Applications**

- EasyScript™ Reverse Transcriptase
- EasyScript Plus<sup>TM</sup> Reverse Transcriptase
- EasyScript™ cDNA Synthesis Kit
- EasyScript Plus™ cDNA Synthesis Kit
- EasyScript™ cDNA Synthesis SuperMix
- EasyScript Plus<sup>™</sup> cDNA Synthesis SuperMix
- EasyScript™ One-Step RT-PCR Kit

in Sensitivity
Yield and
Cost



#### RNase H Inactivation Guarantees Longer cDNA Synthesis

Native MMLV RTase possesses significant RNase H activity which effectively degrades template RNA in RT-PCR reactions leading to reduced cDNA yield. **abm**'s EasyScript™ RTase series has strategic mutations within their RNase H domains which abolish the degradation of RNA, resulting in substantially increased cDNA synthesis compared to RNase H⁺ RTase products offered by competitors. EasyScript™ has an elongation ability of 9 kb while EasyScript Plus™, due to its extreme processivity, can generate cDNA up to 15 kb in length. The elongation abilities of EasyScript™ and EasyScript Plus™ are demonstrated in Figure 1 and 2, respectively.

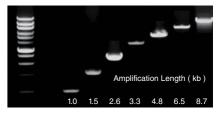


Figure 1: EasyScript™ Elongation Ability
PCR amplification using human cDNA synthesized with
EasyScript™, followed by electrophoresis on a 1% agarose gel.

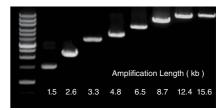


Figure 2: EasyScript Plus™ Elongation Ability PCR amplification using human cDNA synthesized with EasyScript Plus™, followed by electrophoresis on a 1% agarose gel.

### High Accuracy from Fidelity-Enhancing Subunit

Native RTases have notoriously low proofreading ability but **abm** has circumvented this problem with its new EasyScript<sup>™</sup> and EasyScript Plus<sup>™</sup>, which have the highest accuracy rates when compared with other commercial RTases. Both EasyScript<sup>™</sup> and EasyScript Plus<sup>™</sup> contain a unique fidelity-enhancing subunit which drastically enhances accuracy in reverse transcription, making **abm**'s RTases the most reliable on the market (Figure 3).

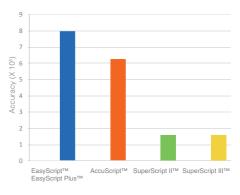


Figure 3: EasyScript™ RTrase series Accuracy Rate EasyScript™ RTases series have the highest accuracy rate compared to leading competitors. Accuracy rate = 1/error rate.



#### High Yield and Sensitivity

Template sensitivity is crucial for reverse transcription reactions and is paramount to the usability and success of an RTase application. EasyScript™ and EasyScript Plus™ have exceptional template sensitivity that ensures high yields of full length cDNA synthesis, even in cases of very low amounts of starting RNA template. These RTases have been strategically engineered to synthesize appreciable amounts of full-length single-stranded cDNA with as little as 0.1 pg of total starting RNA, as demonstrated in Figure 4.

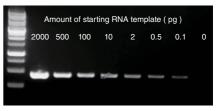
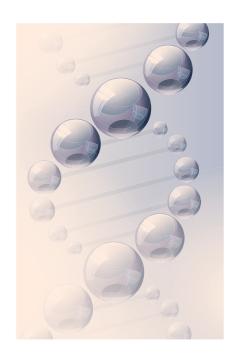


Figure 4: Sensitivity of EasyScript™ Reverse Transcriptase

PCR amplification using human cDNA synthesized with EasyScript™ with varying amounts of starting RNA ( 2000 pg - 0 pg), followed by electrophoresis on a 1% agarose gel.

#### Various Kit Formats Provide Convenience with Consistent Results

abm offers EasyScript™ and EasyScript Plus™ in multiple formats to suit a variety of applications. Both RTases are available as independent enzymes with optimized buffers which provide maximum application flexibility and choice. EasyScript™ and EasyScript Plus™ cDNA Synthesis Kits contain all of the components required for first-strand cDNA synthesis, with the choice of using oligo (dT) and/or random primers. EasyScript™ and EasyScript Plus™ are available as cDNA Synthesis SuperMixes which are proprietary mixtures of all of the materials required for first-strand cDNA synthesis in a 2X concentration. These optimized reaction mixtures contain RNaseOFF Ribonuclease Inhibitor, dNTPs, a balanced concentration of oligo (dT) and random primers. EasyScript™ One-Step RT-PCR Kit contains all of the components necessary for first-strand cDNA synthesis and high fidelity PCR amplification, in one easy and convenient kit format.





# EasyScript™ Product List

Cat. No.	Product Name	Size	Price
G231	EasyScript™ Reverse Transcriptase	25 reactions	\$35.00
G232	EasyScript™ Reverse Transcriptase	100 reactions	\$110.00
G177	EasyScript Plus™ Reverse Transcriptase	25 reactions	\$65.00
G237	EasyScript Plus™ Reverse Transcriptase	100 reactions	\$200.00
G233	EasyScript™ cDNA Synthesis Kit	25 reactions	\$65.00
G234	EasyScript™ cDNA Synthesis Kit	100 reactions	\$185.00
G235	EasyScript Plus™ cDNA Synthesis Kit	25 reactions	\$90.00
G236	EasyScript Plus™ cDNA Synthesis Kit	100 reactions	\$275.00
G451	EasyScript™ cDNA Synthesis SuperMix	25 reactions	\$60.00
G452	EasyScript™ cDNA Synthesis SuperMix	100 reactions	\$165.00
G453	EasyScript Plus™ cDNA Synthesis SuperMix	25 reactions	\$85.00
G454	EasyScript Plus™ cDNA Synthesis SuperMix	100 reactions	\$255.00
G174	One-Step RT-PCR Kit	100 reactions	\$355.00

# **Technical Support**

Applied Biological Materials Inc.

Telephone: (8:30am - 4:30pm PST, Mon - Fri)



Toll Free: 1-866-757-2414 Local: 604-247-2416 Fax: 604-247-2414 Email:



General Information: info@abmGood.com
Order: order@abmGood.com
Technical Support: technical@abmGood.com
Business Development: bd@abmGood.com

Address: Suite #8-13520 Crestwood Place, Richmond, BC. Canada V6V 2G2

Website: www.abmGood.com